

STATE OF ARIZONA AQUIFER PROTECTION PERMIT NO. P-513559 PLACE ID 212050, LTF 88044

1.0 AUTHORIZATION

In compliance with the provisions of Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2, Articles 1, 2, and 3, Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Articles 1 and 2, A.A.C. Title 18, Chapter 11, Article 4 and amendments thereto, and the conditions set forth in this permit, the Arizona Department of Environmental Quality (ADEQ) hereby authorizes Solid Gold, Inc. to close the discharging facility at the Congress Sand Plant located in Congress, Arizona, Yavapai County, over the groundwater of the Upper Hassayampa Sub-basin, in Section 23, Township 10 North, Range 6 West, of the Gila and Salt River Base Line and Meridian.

This permit becomes effective on the date of the Water Quality Division Director's signature and shall be valid for the life of the facility (operational, closure, and post-closure periods) unless suspended or revoked pursuant to A.A.C. R18-9-A213. The permittee shall construct, operate and maintain the permitted facilities:

- 1. Following all the conditions of this permit including the design and operational information documented or referenced below, and
- 2. Such that Aquifer Water Quality Standards (AWQS) are not violated at the applicable point(s) of compliance (POC) set forth below or if an AWQS for a pollutant has been exceeded in an aquifer at the time of permit issuance, that no additional degradation of the aquifer relative to that pollutant and as determined at the applicable POC occurs as a result of the discharge from the facility.

applicable POC occurs as a result of	the discharge from the facility.		
1.1. PERMITTEE INFORMATION			
Facility Name: Facility Address:	Congress Sand Plant Drying Bed 24150 S. Ghost Town Road Congress, Arizona 85332		
County:	Yavapai		
Annual Registration Fee Flow Rate:	Less than 3,000 gallons per day (gpd)		
Permittee: Permittee Address:	Solid Gold, Inc. 649 Sardis Street Midlothian, Texas 76065		
Facility Contact: Emergency Phone No.:	John Owen 214-632-4236		
Latitude/Longitude:	34° 12' 3.36" North 112° 51' 20.44" West		
1.2. AUTHORIZING SIGNATUR	E		
Randall Matas, Deputy Director Water Quality Division Arizona Department of Environmental Q	uality		
Signed this day of	, 20		



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2.0 SPECIFIC CONDITIONS

[A.R.S. §§ 49-203(4), 49-241(A)]

2.1. FACILITY / SITE DESCRIPTION

[A.R.S. § 49-243(K)(8)]

The Congress sand plant operated intermittently during the period September 2018 through February 2021. The facility started operation without obtaining an APP and subsequently, a Consent Judgment required the facility to get an APP. The permittee may not restart operations without a permit amendment.

During the period the facility operated, the sand plant recycled historic mine tailings at the Congress Mine. Onsite groundwater was used to remove very fine particles from historic tailings to create the primary product, a sorted high-silica sand that was sold commercially as a soil amendment. The sand plant tower is a series of cyclones (centrifuges) and screens that separated tailings mixed with water into sand, gravel, and fine material. Conveyor systems, stockpiles, water tanks, water ponds, and a Drying Bed were part of the process. The Drying Bed that received discharge from the thickener tank is the subject of this APP permit application. The thickener tank overflow (clarified water) was pumped to the fresh water tank and recycled through the sand plant. The thickener tank underflow consisted of settled fine particles in slurry which was approximately 50% water; this "slurry concentrate" was discharged to the Drying Bed. Additional fine particles settled out of the slurry concentrate and the recoverable water was pumped back to the thickener. The slurry concentrate remained in the Drying Bed to allow residual water to evaporate sufficiently to be removed from the Drying Bed.

The Drying Bed will be closed as a requirement of this permit. The site includes the following permitted discharging facilities:

	Table 1: DISCHARGING FACILITIES			
Facility	Latitude Longitude			
Drying Bed	34° 12' 3.36" N	112° 51' 20.44" W		

2.1.1. Annual Registration Fee

[A.R.S. § 49-242 and A.A.C. R18-14-104]

The annual registration fee for this permit is payable to ADEQ each year. The annual registration fee flow rate is established by the permitted flow rate identified in Section 1.1. If the facility is not constructed or is incapable of discharge, the permittee may be eligible for reduced fees pursuant to A.A.C. R18-14-104(A), Table 2. Send all correspondence requesting reduced fees to the Groundwater Protection Value Stream. Please reference the permit number, LTF number, and the reason for requesting reduced fees under this rule.

2.1.2. Financial Capability

[A.R.S. § 49-243(N) and A.A.C. R18-9-A203]

The permittee shall demonstrate financial capability under A.R.S. § 49-243(N) and A.A.C. R18-9-A203. The estimated dollar amount for facility closure is \$36,931; clean closure is anticipated, therefore, post-closure costs are estimated as \$00.00. The permittee shall maintain financial capability throughout the life of the facility. A financial assurance mechanism shall be provided in accordance with Table 3: COMPLIANCE SCHEDULE ITEMS.

2.2. BEST AVAILABLE DEMONSTRATED CONTROL TECHNOLOGY (BADCT)

 $[A.R.S.~\S~49\text{-}243(B)~and~A.A.C.~R18\text{-}9\text{-}A202(A)(5)]$

The discharging facility regulated by this permit shall meet requirements specified by A.R.S. §49-243(B) and A.A.C. R18-9-A202(A)(5).

2.2.1. Engineering Design

The BADCT description for the permitted facility is presented in Table 4: PERMITTED FACILITIES AND BADCT.



2.2.2. Site-Specific Characteristics

Not applicable.

2.2.3. Pre-Operational Requirements

Not applicable

2.2.4. Operational Requirements

Not applicable

2.3. DISCHARGE LIMITATIONS

[A.R.S. §§ 49-201(14), 49-243 and A.A.C. R18-9-A205(B)]

The permittee shall maintain all permitted facilities to prevent unauthorized discharges pursuant to A.R.S. §§ 49-201(12) resulting from failure or bypassing of BADCT pollutant control technologies.

2.3.1. Discharge Limitations for the Drying Bed

The Drying Bed shall be backfilled with clean fill and shall not be used to store or dispose of any materials.

2.4. POINT OF COMPLIANCE (POC)

[A.R.S. § 49-244]

The POC is established by the following location:

Table 2: Point(s) of Compliance					
	POC #	Conceptual POC Location	ADWR Registration Number	Latitude	Longitude
	1	Adjacent to and southwest of the Drying Bed	Well not constructed	Well not	constructed

Groundwater monitoring at the POC is not required at the time of permit issuance.

The director may require an amendment of this permit to install a monitoring well if there is cause or concern that groundwater quality may be impacted at the POC. The Director may amend this permit to designate additional points of compliance if information on groundwater gradients or groundwater usage indicates the need.

2.5. MONITORING REQUIREMENTS

[A.R.S. § 49-243(K)(1), A.A.C. R18-9-A206(A)]

Not applicable.

2.6. CONTINGENCY PLAN REQUIREMENTS

[A.R.S. § 49-243(K)(3), (K)(7) and A.A.C. R18-9-A204 and R18-9-A205]

Not applicable.

2.7. REPORTING AND RECORDKEEPING REQUIREMENTS

 $[A.R.S.\ \S\ 49\text{-}243(K)(2)\ and\ A.A.C.\ R18\text{-}9\text{-}A206(B)\ and\ R18\text{-}9\text{-}A207]$

2.7.1. Miscellaneous Reporting

2.7.1.1. Closure Report

The closure report shall include a summary of the results of activities completed per the ADEQ approved closure plan, shall be signed, dated, and sealed by a registered Professional Engineer or Geologist, and shall include the following items:



- 1. A site plan showing the location of the Drying Bed with Latitude and Longitude
- 2. A description of sampling activities
- 3. A summary table of detected constituents with comparison to regulatory criteria
- 4. Description follow-up soil sampling, if any
- 5. The laboratory analytical reports
- 6. Photographic documentation of the work completed, including before and after photos of the Drying Bed.
- 7. Documentation for the disposition of removed items.

2.7.2. Reporting Location

Documents required by this permit shall be mailed to: The Arizona Department of Environmental Quality Groundwater Protection Value Stream Mail Code 5415B-3 1110 West Washington Street Phoenix, Arizona 85007 Phone (602) 771-4571

2.7.3. Changes to Facility Information in Section 1.0

The Groundwater Protection Value Stream shall be notified within ten days of any change of facility information including Facility Name, Permittee Name, Mailing or Street Address, Facility Contact Person, or Emergency Telephone Number.

2.8. Temporary Cessation

[A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A209(A)]

Not applicable.

2.9. Closure

 $[A.R.S.~\S\S~49\text{-}243(K)(6),\,49\text{-}252~\text{and}~A.A.C.~R18\text{-}9\text{-}A209(B)]$

The permittee shall complete the closure activities as described in the permit application document titled *Technical Information in Support of Aquifer Protection Permit Application Congress Sand Plant,* prepared for Solid Gold, Inc., dated February 23, 2021, signed and sealed by Joyce M. O'Connor, Arizona Registered Geologist.

2.9.1. Closure Plan

The permittee shall conduct the following actions as described in the approved closure plan, in order to meet the requirements of A.R.S. \S 49-252 and A.A.C. R18-9-A209(B)(3):

- 1. Remove free water remaining in the Drying Bedby pumping it back to the thickener for reuse..
- 2. Remove remaining solids in the Drying Bedto the fines storage area for future sale..
- 3. Analyze eight grab soil samples from the floor of the Drying Bed for the following parameters:
 - a. Total concentration analysis for:
 - i. Antimony, Arsenic, Barium, Cadmium, Chromium, Fluoride, Lead, Mercury, Nickel, Selenium, Thallium, Nitrate as N, Nitrite as N



- b. Total Kjeldahl Nitrogen
- c. Total Cyanide
- 4. Compare analytical results to the minimum groundwater protection levels (GPLs) and provide the results to ADEQ as required by Section 3.0 Compliance Schedule Item (CSI) #2.
- 5. If ADEQ concurs that clean closure is demonstrated, closure steps will proceed. If ADEQ requests additional documentation of clean closure, an alternate plan will be developed that is mutually acceptable. See Section 3, CSI #3
- 6. Once clean closure is documented, all connections to the sand plant will be removed, the Drying Bed will be backfilled with clean fill, compacted and graded to prevent stormwater from ponding, per Section 3, CSI #4.
- 7. A closure report shall be submitted in accordance with Section 2.7.1.1 and Section 3 CSI #4. If clean closure is documented and approved within 180 days of ADEQ's decision to Grant the permit, it will not be necessary to submit a financial assurance mechanism per Section 3, CSI #5.
- 8. The area may be subsequently covered by concrete or asphalt and used for other purposes.

If the closure plan achieves clean-closure immediately, ADEQ shall issue a letter of approval to the permittee. If the closure plan contains a schedule for bringing the facility to a clean-closure configuration at a future date, ADEQ may incorporate any part of the schedule as an amendment to this permit.

2.9.2. Closure Completion

Upon completion of closure activities, the permittee shall give written notice to the Groundwater Protection Value Stream indicating that the approved closure plan has been implemented fully and providing supporting documentation to demonstrate that clean-closure has been achieved (soil sample results, verification sampling results, groundwater data, as applicable). If clean-closure has been achieved, ADEQ shall issue a letter of approval to the permittee at that time. If any of the following conditions apply, the permittee shall follow the terms of post-closure stated in this permit:

- 1. Clean-closure cannot be achieved at the time of closure notification or within one year thereafter under a diligent schedule of closure actions;
- Further action is necessary to keep the facility in compliance with the AWQS at the applicable POC
 or, for any pollutant for which the AWQS was exceeded at the time this permit was issued, further
 action is necessary to prevent the facility from further degrading the aquifer at the applicable POC
 with respect to that pollutant;
- 3. Remedial, mitigative or corrective actions or controls are necessary to comply with A.R.S. § 49-201(30) and Title 49, Chapter 2, Article 3;
- 4. Further action is necessary to meet property use restrictions.
- 5. SMRF submittals are still required until Clean Closure is issued.

2.10. Post-Closure

[A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9 A209(C)]

Post-closure requirements shall be established based on a review of facility closure actions and will be subject to review and approval by the Groundwater Protection Value Stream.



In the event clean-closure cannot be achieved pursuant to A.R.S. § 49-252, the permittee shall submit for approval to the Groundwater Protection Value Stream a post-closure plan that addresses post-closure maintenance and monitoring actions at the facility. The post-closure plan shall meet all requirements of A.R.S. §§ 49-201(30) and 49-252 and A.A.C. R18-9-A209(C). Upon approval of the post-closure plan, this permit shall be amended or a new permit shall be issued to incorporate all post-closure controls and monitoring activities of the post-closure plan.

2.10.1. Post-Closure Plan

A specific post-closure plan may be required upon the review of the closure report.

2.10.2. Post-Closure Completion

Not required at the time of permit issuance.



3.0 COMPLIANCE SCHEDULE

[A.R.S. § 49-243(K)(5) and A.A.C. R18-9-A208]

Unless otherwise indicated, for each compliance schedule item listed below, the permittee shall submit the required information to the Groundwater Protection Value Stream.

Table 3: COMPLIANCE SCHEDULE ITEMS			
No.	Description	Due By:	Permit Amendment Required?
1	The permittee shall submit for ADEQ approval, a Sampling and Analysis Plan (SAP) for soil sampling the Drying Bed floor per Section 2.9.1 Closure Plan.	No later than 30 days after ADEQ's decision to Grant the permit	n
2	The permittee shall submit for ADEQ review, the sampling and analysis results with comparison to GPLs, per Section 2.9.1, items 3 and 4	No later than 60 days after ADEQ's written approval of the SAP.	n
3	If ADEQ review determines that clean closure is achieved, the permittee shall initiate activities per 2.9.1 Item 6. If ADEQ review determine clean closure is not achieved, the permittee shall submit to ADEQ for approval either: an additional investigation and/or removal plan to achieve clean closure, or a plan for closure in-place, a post-closure plan for maintenance and monitoring activities, and a cost estimate for the post-closure plan.	No later than 30 days after ADEQ's written decision on whether clean closure is achieved.	n
4	If ADEQ determines that clean closure has been achieved, the permittee shall complete the Closure Requirements per Section 2.9.1, Item 6, and provide the Closure Report per Section 2.7.1.1 at the address in Section 2.7.2 Reporting Location	No later than 60 days after ADEQ's written decision that clean closure was achieved.	n
5	Submit a financial assurance mechanism for closure costs in the amount of \$36,931; and a financial mechanism for any post-closure costs, if applicable (see CSI #3).	No later than 180 days after ADEQ's decision to Grant the permit	Yes



4.0 TABLES OF MONITORING REQUIREMENTS

4.1. PERMITTED FACILITIES AND BADCT

Table 4: PERMITTED FACILITIES AND BADCT

Drying Bed

The Drying Bed closure shall meet clean closure requirements per Section 2.9.1 and the Drying Bed shall be backfilled and graded to prevent stormwater from ponding in this area.



5.0 REFERENCES AND PERTINENT INFORMATION

The terms and conditions set forth in this permit have been developed based upon the information contained in the following, which are on file with the Department:

APP Application, dated: February 23,2021

Contingency Plan, dated: Not applicable



6.0 NOTIFICATION PROVISIONS

6.1. Annual Registration Fees

The permittee is notified of the obligation to pay an Annual Registration Fee to ADEQ. The Annual Registration Fee is based on the amount of daily influent or discharge of pollutants in gallons per day (gpd) as established by A.R.S. § 49-242.

6.2. Duty to Comply

[A.R.S. §§ 49-221 through 263]

The permittee is notified of the obligation to comply with all conditions of this permit and all applicable provisions of Title 49, Chapter 2, Articles 1, 2 and 3 of the Arizona Revised Statutes, Title 18, Chapter 9, Articles 1 through 4, and Title 18, Chapter 11, Article 4 of the Arizona Administrative Code. Any permit non-compliance constitutes a violation and is grounds for an enforcement action pursuant to Title 49, Chapter 2, Article 4 or permit amendment, suspension, or revocation.

6.3. Duty to Provide Information

[A.R.S. §§ 49-243(K)(2) and 49-243(K)(8)]

The permittee shall furnish to the Director, or an authorized representative, within a time specified, any information which the Director may request to determine whether cause exists for amending or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

6.4. Compliance with Aquifer Water Quality Standards

[A.R.S. §§ 49-243(B)(2) and 49-243(B)(3)]

The permittee shall not cause or contribute to a violation of an Aquifer Water Quality Standard (AWQS) at the applicable point of compliance (POC) for the facility. Where, at the time of issuance of the permit, an aquifer already exceeds an AWQS for a pollutant, the permittee shall not discharge that pollutant so as to further degrade, at the applicable point of compliance for the facility, the water quality of any aquifer for that pollutant.

6.5. Technical and Financial Capability

[A.R.S. §§ 49-243(K)(8) and 49-243(N) and A.A.C. R18-9-A202(B) and R18-9-A203(E) and (F)]

The permittee shall have and maintain the technical and financial capability necessary to fully carry out the terms and conditions of this permit. Any bond, insurance policy, trust fund, or other financial assurance mechanism provided as a demonstration of financial capability in the permit application, pursuant to A.A.C. R18-9-A203(C), shall be in effect prior to any discharge authorized by this permit and shall remain in effect for the duration of the permit.

6.6. Reporting of Bankruptcy or Environmental Enforcement

[A.A.C. R18-9-A207(C)]

The permittee shall notify the Director within five days after the occurrence of any one of the following:

- 1. the filing of bankruptcy by the permittee; or
- 2. the entry of any order or judgment not issued by the Director against the permittee for the enforcement of any environmental protection statute or rule.

6.7. Monitoring and Records

[A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A206]

The permittee shall conduct any monitoring activity necessary to assure compliance with this permit, with the applicable water quality standards established pursuant to A.R.S. §§ 49-221 and 49-223 and §§ 49-241 through 49-252.



6.8. Inspection and Entry

[A.R.S. §§ 41-1009, 49-203(B), and 49-243(K)(8)]

In accordance with A.R.S. §§ 41-1009 and 49-203(B), the permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to enter and inspect the facility as reasonably necessary to ensure compliance with Title 49, Chapter 2, Article 3 of the Arizona Revised Statutes, and Title 18, Chapter 9, Articles 1 through 4 of the Arizona Administrative Code and the terms and conditions of this permit.

6.9. Duty to Modify

[A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A211]

The permittee shall apply for and receive a written amendment before deviating from any of the designs or operational practices authorized by this permit.

6.10. Permit Action: Amendment, Transfer, Suspension, and Revocation

[A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

This permit may be amended, transferred, suspended, or revoked for cause, under the rules of the Department. The permittee shall notify the Groundwater Protection Value Stream in writing within 15 days after any change in the owner or operator of the facility. The notification shall state the permit number, the name of the facility, the date of property transfer, and the name, address, and phone number where the new owner or operator can be reached. The operator shall advise the new owner or operators of the terms of this permit and the need for permit transfer in accordance with the rules.



7.0 ADDITIONAL PERMIT CONDITIONS

7.1. Other Information

[A.R.S. § 49-243(K)(8)]

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, the permittee shall promptly submit the correct facts or information.

7.2. Severability

[A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. The filing of a request by the permittee for a permit action does not stay or suspend the effectiveness of any existing permit condition.

7.3. Permit Transfer

This permit may not be transferred to any other person except after notice to and approval of the transfer by the Department. No transfer shall be approved until the applicant complies with all transfer requirements as specified in A.A.C. R18-9-A212(B) and (C).